

**CLAIMS**

1. An apparatus for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained  
5 by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the apparatus comprising:

data selection means for selecting multiple items of first informational data positioned in a periphery of a target position in  
10 the second informational signal, based on the first informational signal;

class detection means for detecting a class to which informational data of the target position belongs, based on the multiple items of first informational data selected by the data  
15 selection means;

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to the class detected by the class detection means; and

correction means for performing correction processing by use  
20 of the correction data generated by the correction data generation means on second informational data among the multiple items of informational data that constitute the first informational signal, said second informational data corresponding to the target position in the second informational signal, to obtain informational data of  
25 the target position in the second informational signal.

2. The apparatus for processing informational signal according to Claim 1, wherein the correction data generation means includes:

storage means for storing the correction data for each class;

and

data-reading means for reading the correction data out of the storage means, said correction data corresponding to the class detected by the class detection means.

5

3. The apparatus for processing informational signal according to Claim 2, wherein the correction data stored in the storage means is generated beforehand by using a student signal corresponding to the first informational signal and a teacher signal corresponding to  
10 the second informational signal.

15

4. The apparatus for processing informational signal according to Claim 3, wherein the student signal is obtained by decoding informational digital signal obtained by encoding the teacher signal.

20

5. The apparatus for processing informational signal according to Claim 1, wherein the number of items of the informational data of the target position in the second informational signal is N times (N is an integer of at least 2) the number of item of the second  
informational data corresponding to the target position.

25

6. The apparatus for processing informational signal according to Claim 5, wherein the correction data includes difference data of the number corresponding to the number of item of the informational  
data of the target position in the second informational signal; and

wherein the correction means adds the corresponding second informational data to each of the multiple items of correction data contained in each divided region obtained by dividing the correction data by N to obtain output informational data.

7. A device for processing image signal in which a first image signal comprised of multiple items of pixel data, said first image signal being obtained by decoding an encoded digital image signal,  
 5 is converted into a second image signal comprised of multiple items of pixel data, the device comprising:

data selection means for selecting multiple items of first pixel data positioned in a periphery of a target position in the second image signal, based on the first image signal;

10 class detection means for detecting a class to which pixel data of the target position belongs, based on the multiple items of first pixel data selected by the data selection means;

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding  
 15 to the class detected by the class detection means; and

correction means for performing correction processing by use of the correction data generated by the correction data generation means on second pixel data among the multiple items of pixel data that constitute the first image signal, said second pixel data  
 20 corresponding to the target position in the second image signal, to obtain pixel data of the target position in the second image signal.

8. An image display device comprising:

image signal input means for allowing a first image signal  
 25 comprised of multiple items of pixel data to be input, the first image signal being obtained by decoding an encoded digital image signal;

image-signal-processing means for converting the first image signal input through the image signal input means into a second image signal comprised of multiple items of pixel data and outputting it;

and

image display means for displaying an image on an image display element thereof, the image being due to the second image signal output from the image-signal-processing means,

5        wherein the image-signal-processing means includes:

         data selection means for selecting multiple items of first pixel data positioned in a periphery of a target position in the second image signal, based on the first image signal;

10        class detection means for detecting a class to which pixel data of the target position belongs, based on the multiple items of first pixel data selected by the data selection means;

15        correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to the class detected by the class detection means; and

20        correction means for performing correction processing by use of the correction data generated by the correction data generation means on second pixel data among the multiple items of pixel data that constitute the first image signal, said second pixel data corresponding to the target position in the second image signal, to obtain pixel data of the target position in the second image signal.

25        9. A method for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of selecting multiple items of first informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

5 a second step of detecting a class to which informational data of the target position belongs, based on the multiple items of first informational data selected by the first step;

a third step of generating correction data for correcting an encoding noise, said correction data corresponding to the class detected by the second step; and

10 a fourth step of performing correction processing by use of the correction data generated by the third step on second informational data among the multiple items of informational data that constitute the first informational signal, said second informational data corresponding to the target position in the second informational  
15 signal, to obtain informational data of the target position in the second informational signal.

10. A computer-readable medium for recording a program that allows a computer to execute a method for processing informational  
20 signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

25 a first step of selecting multiple items of first informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

a second step of detecting a class to which informational data of the target position belongs, based on the multiple items of first

informational data selected by the first step;

a third step of generating correction data for correcting an encoding noise, said correction data corresponding to the class detected by the second step; and

5 a fourth step of performing correction processing by use of the correction data generated by the third step on second informational data among the multiple items of informational data that constitute the first informational signal, said second informational data corresponding to the target position in the second informational  
10 signal, to obtain informational data of the target position in the second informational signal.

11. A program for allowing a computer to execute a method for processing informational signal, in order to convert a first  
15 informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

20 a first step of selecting multiple items of first informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

a second step of detecting a class to which informational data of the target position belongs, based on the multiple items of first  
25 informational data selected by the first step;

a third step of generating correction data for correcting an encoding noise, said correction data corresponding to the class detected by the second step; and

a fourth step of performing correction processing by use of the

correction data generated by the third step on second informational data among the multiple items of informational data that constitute the first informational signal, said second informational data corresponding to the target position in the second informational signal, to obtain informational data of the target position in the second informational signal.

12. An apparatus for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the apparatus comprising:

data selection means for selecting multiple items of first informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

class detection means for detecting a class to which informational data of the target position belongs, based on the multiple items of first informational data selected by the data selection means;

correction data generation means for generating correction data for correcting an encoding noise relative to a frequency coefficient obtained by orthogonal transformation, said correction data corresponding to the class detected by the class detection means;

orthogonal transformation means for performing orthogonal transformation on second informational data among the multiple items of informational data that constitute the first informational signal, said second informational data corresponding to the target position

in the second informational signal;

correction means for performing correction processing by use of the correction data generated by the correction data generation means on the frequency coefficient obtained by the orthogonal

5 transformation means; and

inverse orthogonal transformation means for performing inverse orthogonal transformation on the frequency coefficient corrected by the correction means to obtain the informational data of the target position in the second informational signal.

10

13. The apparatus for processing informational signal according to Claim 12, wherein the correction data generation means comprises:

storage means for storing the correction data for each class;

15 and

data-reading means for reading the correction data out of the storage means, said correction data corresponding to the class detected by the class detection means.

20

14. The apparatus for processing informational signal according to Claim 13, wherein the correction data stored in the storage means is generated beforehand by using a student signal corresponding to the first informational signal and a teacher signal corresponding to the second informational signal.

25

15. The apparatus for processing informational signal according to Claim 14, wherein the student signal is obtained by decoding informational digital signal obtained by encoding the teacher signal.



16. The apparatus for processing informational signal according to Claim 12, wherein the number of item of the informational data of the target position in the second informational signal is N times (N is an integer of at least 2) the number of item of the second informational data corresponding to this target position.

17. The apparatus for processing informational signal according to Claim 16, wherein the correction data includes difference data of frequency coefficient of the number corresponding to the number of item of the informational data of the target position in the second informational signal; and

wherein the correction means adds the frequency coefficient output from this orthogonal transformation means to a low-frequency component part of the correction data, said part corresponding to the frequency coefficient output from the orthogonal transformation means to obtain an output frequency coefficient.

18. The apparatus for processing informational signal according to Claim 16, wherein the correction data includes frequency coefficient of the number corresponding to the number of item of the informational data of the target position in the second informational signal; and

wherein the correction means replaces at least a low-frequency component part of the correction data, said part corresponding to the frequency coefficient output from the orthogonal transformation means, by the frequency coefficient output from the orthogonal transformation means to obtain an output frequency coefficient.

19. A device for processing image signal in which a first image signal comprised of multiple items of pixel data, said first image signal being obtained by decoding an encoded digital image signal, is converted into a second image signal comprised of multiple items of pixel data, the device comprising:

data selection means for selecting multiple items of first pixel data positioned in a periphery of a target position in the second image signal, based on the first image signal;

class detection means for detecting a class to which pixel data of the target position belongs, based on the multiple items of first pixel data selected by the data selection means;

correction data generation means for generating correction data for correcting an encoding noise relative to a frequency coefficient obtained by orthogonal transformation, said correction data corresponding to the class detected by the class detection means;

orthogonal transformation means for performing orthogonal transformation on second pixel data among the multiple items of pixel data that constitute the first image signal, said second pixel data corresponding to the target position in the second image signal;

correction means for performing correction processing by use of the correction data generated by the correction data generation means on the frequency coefficient output from the orthogonal transformation means; and

inverse orthogonal transformation means for performing inverse orthogonal transformation on the frequency coefficient output from the correction means to obtain the pixel data of the target position in the second image signal.

20. An image display device comprising:

image signal input means for allowing a first image signal comprised of multiple items of pixel data to be input, said first image signal being obtained by decoding an encoded digital image signal;

5 image-signal-processing means for converting the first image signal input through the image signal input means into a second image signal comprised of multiple items of pixel data and outputting it; and

image display means for displaying an image on an image display element thereof, the image being due to the second image signal output  
10 from the image-signal-processing means,

wherein the image-signal-processing means includes:

data selection means for selecting multiple items of first pixel data positioned in a periphery of a target position in the second image signal, based on the first image signal;

15 class detection means for detecting a class to which pixel data of the target position belongs, based on the multiple items of first pixel data selected by the data selection means;

correction data generation means for generating correction data for correcting an encoding noise relative to  
20 a frequency coefficient obtained by orthogonal transformation, said correction data corresponding to the class detected by the class detection means;

orthogonal transformation means for performing orthogonal transformation on second pixel data among the  
25 multiple items of pixel data that constitute the first image signal, said second pixel data corresponding to the target position in the second image signal;

correction means for performing correction processing by use of the correction data generated by the correction data

generation means on the frequency coefficient output from the orthogonal transformation means; and

inverse orthogonal transformation means for performing inverse orthogonal transformation on the frequency coefficient output from the correction means to obtain the pixel data of the target position in the second image signal.

21. A method for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of selecting multiple items of first informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

a second step of detecting a class to which informational data of the target position belongs, based on the multiple items of first informational data selected by the first step;

a third step of generating correction data for correcting an encoding noise relative to a frequency coefficient obtained by orthogonal transformation, said correction data corresponding to the class detected by the second step;

a fourth step of performing orthogonal transformation on second informational data among the multiple items of informational data that constitute the first informational signal, said second informational data corresponding to the target position in the second informational signal;

a fifth step of performing correction processing by use of the

correction data generated by the third step on the frequency coefficient obtained by the fourth step; and

5 a sixth step of performing inverse orthogonal transformation on the frequency coefficient corrected by the fifth step to obtain the informational data of the target position in the second informational signal.

22. A computer-readable medium for recording a program that allows a computer to execute a method for processing informational  
10 signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

15 a first step of selecting multiple items of first informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

a second step of detecting a class to which informational data of the target position belongs, based on the multiple items of first  
20 informational data selected by the first step;

a third step of generating correction data for correcting an encoding noise relative to a frequency coefficient obtained by orthogonal transformation, said correction data corresponding to the class detected by the second step;

25 a fourth step of performing orthogonal transformation on second informational data among the multiple items of informational data that constitute the first informational signal, said second informational data corresponding to the target position in the second informational signal;

a fifth step of performing correction processing by use of the correction data generated by the third step on the frequency coefficient obtained by the fourth step; and

5 a sixth step of performing inverse orthogonal transformation on the frequency coefficient corrected by the fifth step to obtain the informational data of the target position in the second informational signal.

23. A program for allowing a computer to execute a method for  
10 processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational signal being produced by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method  
15 comprising:

a first step of selecting a plurality of first informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

a second step of detecting a class to which informational data  
20 of the target position belongs, based on the plurality of first informational data selected by the first step;

a third step of generating such correction data for correcting encoding noise related to a frequency coefficient obtained by orthogonal transformation as to correspond to the class detected by  
25 the second step;

a fourth step of performing orthogonal transformation on such second informational data of the multiple items of informational data that constitutes the first informational signal as to correspond to the target position in the second informational signal;

a fifth step of performing correction processing by use of the correction data generated by the third step on a frequency coefficient obtained by the fourth step; and

5 a sixth step of obtaining the informational data of the target position in the second informational signal by performing inverse orthogonal transformation on the frequency coefficient corrected by the fifth step.

24. A unit for generating correction data for correcting an  
10 encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the unit  
15 comprising:

decoding means for decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

20 class detection means for detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal output from the decoding means;

subtraction means for performing subtraction processing by use of informational data among the multiple items of informational data  
25 that constitute the student signal, said informational data corresponding to the target position, on the informational data of the target position in the teacher signal; and

operation means for averaging, for each class, output data of the subtraction means based on the class detected by the class

detection means, to obtain correction data for each class.

25. The unit for generating correction data according to Claim 24, wherein the class detection means selects multiple items of informational data positioned in a periphery of the target position in the teacher signal based on the student signal output from the decoding means, to detect a class to which informational data of the target position in the teacher signal belongs, based on the selected multiple items of informational data.

10

26. A method for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

15

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

20

a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step;

25

a third step of performing subtraction processing by use of informational data among the multiple items of informational data that constitute the student signal, said informational data corresponding to the target position, on the informational data of the target position in the teacher signal; and



a fourth step of averaging, for each class, data obtained at the third step based on the class detected at the second step, to obtain correction data for each class.

5           27. A computer-readable medium for recording a program for allowing a computer to execute a method for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained  
10 by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational  
15 signal, to obtain a student signal that corresponds to the first informational signal;

a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step;

20           a third step of performing subtraction processing by use of such informational data among the multiple items of informational data that constitute the student signal, said informational data corresponding to the target position, on the informational data of the target position in the teacher signal; and

25           a fourth step of averaging, for each class, data obtained at the third step based on the class detected at the second step, to obtain correction data for each class.

28. A program for allowing a computer to execute a method for

generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step;

a third step of performing subtraction processing by use of such informational data among the multiple items of informational data that constitute the student signal, said informational data corresponding to the target position, on the informational data of the target position in the teacher signal; and

a fourth step of averaging, for each class, data obtained at the third step based on the class detected at the second step, to obtain correction data for each class.

29. A unit for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the unit

comprising:

decoding means for decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to  
 5 the first informational signal;

class detection means for detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal output from the decoding means;

first orthogonal transformation means for performing  
 10 orthogonal transformation on informational data of the target position in the teacher signal to obtain a first frequency coefficient;

second orthogonal transformation means for performing orthogonal transformation on informational data among multiple items of informational data that constitute the student signal, said  
 15 informational data corresponding to the target position, to obtain a second frequency coefficient;

subtraction means for performing subtraction processing by use of the second frequency coefficient obtained by the second orthogonal transformation means, on the first frequency coefficient obtained by  
 20 the first orthogonal transformation means; and

operation means for averaging, for each class, output data of the subtraction means based on the class detected by the class detection means, to obtain correction data for each class.

25        30. The unit for generating correction data according to Claim 29, wherein the class detection means selects multiple items of informational data positioned in a periphery of the target position in the teacher signal based on the student signal output from the decoding means, to detect a class to which informational data of the

target position in the teacher signal belongs, based on the selected multiple items of informational data.

31. A method for generating correction data for correcting an  
5 encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method  
10 comprising:

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

15 a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step;

a third step of performing orthogonal transformation on informational data of the target position in the teacher signal to  
20 obtain a first frequency coefficient;

a fourth step of performing orthogonal transformation on informational data among multiple items of informational data that constitute the student signal, said informational data corresponding to the target position, to obtain a second frequency coefficient;

25 a fifth step of performing subtraction processing by use of the second frequency coefficient obtained by the fourth step, on the first frequency coefficient obtained by the third step; and

a sixth step of averaging, for each class, data obtained at the fifth step based on the class detected by the second step, to obtain

correction data for each class.

32. A computer-readable medium for recording a program for allowing a computer to execute a method for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step;

a third step of performing orthogonal transformation on informational data of the target position in the teacher signal to obtain a first frequency coefficient;

a fourth step of performing orthogonal transformation on informational data among multiple items of informational data that constitute the student signal, said informational data corresponding to the target position, to obtain a second frequency coefficient;

a fifth step of performing subtraction processing by use of the second frequency coefficient obtained by the fourth step, on the first frequency coefficient obtained by the third step; and

a sixth step of averaging, for each class, data obtained at the fifth step based on the class detected by the second step, to obtain

correction data for each class.

33. A program for allowing a computer to execute a method for generating correction data for correcting an encoding noise, said  
5 correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method  
10 comprising:

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

15 a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step;

a third step of performing orthogonal transformation on informational data of the target position in the teacher signal to  
20 obtain a first frequency coefficient;

a fourth step of performing orthogonal transformation on informational data among multiple items of informational data that constitute the student signal, said informational data corresponding to the target position, to obtain a second frequency coefficient;

25 a fifth step of performing subtraction processing by use of the second frequency coefficient obtained by the fourth step, on the first frequency coefficient obtained by the third step; and

a sixth step of averaging, for each class, data obtained at the fifth step based on the class detected by the second step, to obtain

correction data for each class.

34. A unit for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the unit comprising:

10        decoding means for decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

15        class detection means for detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal output from the decoding means; and

20        operation means for averaging, for each class, informational data of the target position in the teacher signal based on the class detected by the class detection means, to obtain correction data for each class.

35. The unit for generating correction data according to Claim 34, wherein the class detection means selects multiple items of informational data positioned in a periphery of the target position in the teacher signal based on the student signal output from the decoding means, to detect a class to which informational data of the target position in the teacher signal belongs, based on the selected multiple items of informational data.

36. A method for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

10 a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

15 a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step; and

a third step of averaging, for each class, informational data of the target position in the teacher signal based on the class detected at the second step, to obtain correction data for each class.

20 37. A computer-readable medium for recording a program for allowing a computer to execute a method for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained  
25 by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational



signal, to obtain a student signal that corresponds to the first informational signal;

a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least  
5 the student signal obtained at the first step; and

a third step of averaging, for each class, informational data of the target position in the teacher signal based on the class detected at the second step, to obtain correction data for each class.

10 38. A program for allowing a computer to execute a method for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded  
15 informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational  
20 signal, to obtain a student signal that corresponds to the first informational signal;

a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step; and

25 a third step of averaging, for each class, informational data of the target position in the teacher signal based on the class detected at the second step, to obtain correction data for each class.

39. A unit for generating correction data for correcting an

encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the unit comprising:

decoding means for decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

class detection means for detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal output from the decoding means;

orthogonal transformation means for performing orthogonal transformation on informational data of the target position in the teacher signal to obtain a frequency coefficient; and

operation means for averaging, for each class, the frequency coefficient obtained by the orthogonal transformation means based on the class detected by the class detection means, to obtain correction data for each class.

40. The unit for generating correction data according to Claim 39, wherein the class detection means selects multiple items of informational data positioned in a periphery of the target position in the teacher signal based on the student signal output from the decoding means, to detect a class to which informational data of the target position in the teacher signal belongs, based on the selected multiple items of informational data.

41. A method for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step;

a third step of performing orthogonal transformation on informational data of the target position in the teacher signal to obtain a frequency coefficient; and

a fourth step of averaging, for each class, the frequency coefficient obtained by the third step based on the class detected at the second step, to obtain correction data for each class.

42. A computer-readable medium for recording a program for allowing a computer to execute a method for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

5 a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step;

a third step of performing orthogonal transformation on informational data of the target position in the teacher signal to  
10 obtain a frequency coefficient; and

a fourth step of averaging, for each class, the frequency coefficient obtained by the third step based on the class detected at the second step, to obtain correction data for each class.

15 43. A program for allowing a computer to execute a method for generating correction data for correcting an encoding noise, said correction data being used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded  
20 informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding informational digital signal obtained by encoding a teacher signal corresponding to the second informational  
25 signal, to obtain a student signal that corresponds to the first informational signal;

a second step of detecting a class to which informational data of a target position in the teacher signal belongs, based on at least the student signal obtained at the first step;

a third step of performing orthogonal transformation on informational data of the target position in the teacher signal to obtain a frequency coefficient; and

5 a fourth step of averaging, for each class, the frequency coefficient obtained by the third step based on the class detected at the second step, to obtain correction data for each class.

44. An apparatus for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained  
10 by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the apparatus comprising:

correction data generation means for generating correction data  
15 for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

correction means for performing correction processing by use of the correction data generated by the correction data generation  
20 means on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to the target position in the second informational signal;

coefficient data generation means for generating coefficient  
25 data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

data selection means for selecting multiple items of informational data positioned in a periphery of the target position

in the second informational signal, based on the informational data corrected by the correction means; and

informational data generation means for generating the informational data of the target position in the second informational  
5 signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means and the multiple items of informational data selected by the data selection means.

45. The apparatus for processing informational signal  
10 according to Claim 44, wherein the first class and the second class are the same as each other.

46. The apparatus for processing informational signal  
according to Claim 44, wherein class classification relating to the  
15 second class is the one obtained by making class classification relating to said first class finer.

47. A device for processing image signal in which a first image  
signal comprised of multiple items of pixel data, said first image  
20 signal obtained by decoding an encoded digital image signal, is converted into a second image signal comprised of multiple items of pixel data, the device comprising:

correction data generation means for generating correction data  
for correcting an encoding noise, said correction data corresponding  
25 to a first class to which pixel data of a target position in the second image signal belongs;

correction means for performing correction processing by use  
of the correction data generated by the correction data generation  
means on pixel data among the multiple items of pixel data that

constitute the first image signal, said pixel data corresponding to the target position in the second image signal;

coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the pixel data of the target position in the second image signal belongs;

data selection means for selecting multiple items of pixel data positioned in a periphery of the target position in the second image signal, based on the pixel data corrected by the correction means; and

pixel data generation means for generating the pixel data of the target position in the second image signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means and the multiple items of pixel data selected by the data selection means.

48. An image display device comprising:

image signal input means for allowing a first image signal comprised of multiple items of pixel data to be input, said first image signal being obtained by decoding an encoded digital image signal;

image-signal-processing means for converting the first image signal input through the image signal input means into a second image signal comprised of multiple items of pixel data and outputting it; and

image display means for displaying an image on an image display element thereof, the image being due to the second image signal output from the image-signal-processing means,

wherein the image-signal-processing means comprises:

correction data generation means for generating

correction data for correcting an encoding noise, said correction data corresponding to a first class to which pixel data of a target position in the second image signal belongs;

correction means for performing correction processing by use of the correction data generated by the correction data generation means on pixel data among the multiple items of pixel data that constitute the first image signal, said pixel data corresponding to the target position in the second image signal;

coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the pixel data of the target position in the second image signal belongs;

data selection means for selecting multiple items of pixel data positioned in a periphery of the target position in the second image signal, based on the pixel data corrected by the correction means; and

pixel data generation means for generating the pixel data of the target position in the second image signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means and the multiple items of pixel data selected by the data selection means.

49. A method for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an



encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

5 a second step of performing correction processing by use of the correction data generated at the first step on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to the target position in the second informational signal;

10 a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

15 a fourth step of selecting multiple items of informational data positioned in a periphery of the target position in the second informational signal, based on the informational data corrected at the second step; and

20 a fifth step of generating the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the third step and the multiple items of informational data selected at the fourth step.

50. A computer-readable medium for recording a program that allows a computer to execute a method for processing informational  
25 signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

5       a second step of performing correction processing by use of the correction data generated at the first step on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to the target position in the second informational signal;

10       a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

15       a fourth step of selecting multiple items of informational data positioned in a periphery of the target position in the second informational signal, based on the informational data corrected at the second step; and

20       a fifth step of generating the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the third step and the multiple items of informational data selected at the fourth step.

25       51. A program for allowing a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method

comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of performing correction processing by use of the correction data generated at the first step on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to the target position in the second informational signal;

a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

a fourth step of selecting multiple items of informational data positioned in a periphery of the target position in the second informational signal, based on the informational data corrected at the second step; and

a fifth step of generating the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the third step and the multiple items of informational data selected at the fourth step.

52. An apparatus for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of

informational data, the apparatus comprising:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in  
5 the second informational signal belongs;

orthogonal transformation means for performing orthogonal transformation on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to a periphery of the target  
10 position in the second informational signal;

correction means for performing correction processing on a frequency coefficient obtained by the orthogonal transformation means by use of the correction data generated by the correction data generation means;

15 coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs;

frequency coefficient selection means for selecting plural  
20 frequency coefficients each corresponding to the periphery of the target position in the second informational signal based on the frequency coefficient corrected by the correction means;

frequency coefficient generation means for generating a frequency coefficient corresponding to the informational data of the  
25 target position in the second informational signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means and the plural frequency coefficients selected by the frequency coefficient selection means;  
and

inverse orthogonal transformation means for obtaining the informational data of the target position in the second informational signal by performing inverse orthogonal transformation on the frequency coefficient generated by the frequency coefficient generation means.

53. The apparatus for processing informational signal according to Claim 52, wherein the first class and the second class are the same as each other.

54. The apparatus for processing informational signal according to Claim 52, wherein class classification relating to the second class is the one obtained by making class classification relating to said first class finer.

55. A device for processing image signal in which a first image signal comprised of multiple items of pixel data, said first image signal being obtained by decoding an encoded digital image signal, is converted into a second image signal comprised of multiple items of pixel data, the device comprising:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which pixel data of a target position in the second image signal belongs;

orthogonal transformation means for performing orthogonal transformation on pixel data among the multiple items of pixel data that constitute the first image signal, said pixel data corresponding to a periphery of the target position in the second image signal;

correction means for performing correction processing on a

frequency coefficient obtained by the orthogonal transformation means by use of the correction data generated by the correction data generation means;

coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which pixel data of the target position in the second image signal belongs;

frequency coefficient selection means for selecting plural frequency coefficients each corresponding to the periphery of the target position in the second image signal based on the frequency coefficient corrected by the correction means;

frequency coefficient generation means for generating a frequency coefficient corresponding to the pixel data of the target position in the second image signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means and the plural frequency coefficients selected by the frequency coefficient selection means; and

inverse orthogonal transformation means for obtaining the pixel data of the target position in the second image signal by performing inverse orthogonal transformation on the frequency coefficient generated by the frequency coefficient generation means.

56. An image display device comprising:

image signal input means for allowing a first image signal comprised of multiple items of pixel data to be input, said first image signal being obtained by decoding an encoded digital image signal;

image-signal-processing means for converting the first image signal input through the image signal input means into a second image

signal comprised of multiple items of pixel data and outputting it;  
and

image display means for displaying an image on an image display  
element thereof, said image being due to the second image signal output  
5 from the image-signal-processing means,

wherein the image-signal-processing means comprises:

correction data generation means for generating  
correction data for correcting an encoding noise, said  
correction data corresponding to a first class to which pixel  
10 data of a target position in the second image signal belongs;

orthogonal transformation means for performing  
orthogonal transformation on pixel data among the multiple  
items of pixel data that constitute the first image signal, said  
pixel data corresponding to a periphery of the target position  
15 in the second image signal;

correction means for performing correction processing on  
a frequency coefficient obtained by the orthogonal  
transformation means by use of the correction data generated  
by the correction data generation means;

20 coefficient data generation means for generating  
coefficient data used in an estimate equation, said coefficient  
data corresponding to a second class to which the pixel data  
of the target position in the second image signal belongs;

frequency coefficient selection means for selecting  
25 plural frequency coefficients each corresponding to the  
periphery of the target position in the second image signal based  
on the frequency coefficient corrected by the correction means;

frequency coefficient generation means for generating a  
frequency coefficient corresponding to the pixel data of the

target position in the second image signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means and the plural frequency coefficients selected by the frequency coefficient selection means; and

inverse orthogonal transformation means for obtaining the pixel data of the target position in the second image signal by performing inverse orthogonal transformation on the frequency coefficient generated by the frequency coefficient generation means.

57. A method for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of performing orthogonal transformation on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to a periphery of the target position in the second informational signal;

a third step of performing correction processing on a frequency coefficient obtained at the second step by use of the correction data generated at the first step;



a fourth step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs;

5        a fifth step of selecting plural frequency coefficients each corresponding to the periphery of the target position in the second informational signal based on the frequency coefficient corrected at the third step;

10       a sixth step of generating a frequency coefficient corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fourth step and the plural frequency coefficients selected at the fifth step; and

15       a seventh step of obtaining the informational data of the target position in the second informational signal by performing inverse orthogonal transformation on the frequency coefficient generated at the sixth step.

20       58. A computer-readable medium for recording a program that allows a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items  
25       of informational data, the method comprising:

      a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of performing orthogonal transformation on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to a periphery of the target position in the second informational signal;

a third step of performing correction processing on a frequency coefficient obtained at the second step by use of the correction data generated at the first step;

a fourth step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs;

a fifth step of selecting plural frequency coefficients each corresponding to the periphery of the target position in the second informational signal based on the frequency coefficient corrected at the third step;

a sixth step of generating a frequency coefficient corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fourth step and the plural frequency coefficients selected at the fifth step; and

a seventh step of obtaining the informational data of the target position in the second informational signal by performing inverse orthogonal transformation on the frequency coefficient generated at the sixth step.

59. A program for allowing a computer to execute a method for processing informational signal, in order to convert a first

informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method  
5 comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

10 a second step of performing orthogonal transformation on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to a periphery of the target position in the second informational signal;

15 a third step of performing correction processing on a frequency coefficient obtained at the second step by use of the correction data generated at the first step;

a fourth step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to  
20 which informational data of the target position in the second informational signal belongs;

a fifth step of selecting plural frequency coefficients each corresponding to the periphery of the target position in the second informational signal based on the frequency coefficient corrected at  
25 the third step;

a sixth step of generating a frequency coefficient corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fourth step and the plural

frequency coefficients selected at the fifth step; and

a seventh step of obtaining the informational data of the target position in the second informational signal by performing inverse orthogonal transformation on the frequency coefficient generated at  
5 the sixth step.

60. An apparatus for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained  
10 by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the apparatus comprising:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding  
15 to a first class to which informational data of a target position in the second informational signal belongs;

first data selection means for selecting multiple items of informational data positioned in a periphery of the target position in the second informational signal, based on the first informational  
20 signal;

second data selection means for selecting multiple items of correction data that corresponds to the multiple items of informational data selected by the first data selection means, based on the correction data generated by the correction data generation  
25 means;

coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs; and

informational data generation means for generating the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means, the multiple items  
5 of informational data selected by the first data selection means, and the multiple items of correction data selected by the second data selection means.

61. The apparatus for processing informational signal  
10 according to Claim 60, wherein the first class and the second class are the same as each other.

62. The apparatus for processing informational signal according to Claim 60, wherein class classification relating to the  
15 second class is the one obtained by making class classification relating to said first class finer.

63. A device for processing image signal in which a first image signal comprised of multiple items of pixel data, said first image  
20 signal being obtained by decoding an encoded digital image signal, is converted into a second image signal comprised of multiple items of pixel data, the device comprising:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding  
25 to a first class to which pixel data of a target position in the second image signal belongs;

first data selection means for selecting multiple items of pixel data positioned in a periphery of the target position in the second image signal, based on the first image signal;

second data selection means for selecting multiple items of correction data that corresponds to the multiple items of pixel data selected by the first data selection means, based on the correction data generated by the correction data generation means;

5       coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which pixel data of the target position in the second image signal belongs; and

10       pixel data generation means for generating the pixel data of the target position in the second image signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means, the multiple items of pixel data selected by the first data selection means, and the multiple items of correction data selected by the second data selection means.

15

64. An image display device comprising:

image signal input means for allowing a first image signal comprised of multiple items of pixel data to be input, said first image signal being obtained by decoding an encoded digital image signal;

20       image-signal-processing means for converting the first image signal input through the image signal input means into a second image signal comprised of multiple items of pixel data and outputting it; and

image display means for displaying an image on an image display element thereof, said image being due to the second image signal output from the image-signal-processing means,

wherein the image-signal-processing means comprises:

correction data generation means for generating correction data for correcting an encoding noise, said

correction data corresponding to a first class to which pixel data of a target position in the second image signal belongs;

first data selection means for selecting multiple items of pixel data positioned in a periphery of the target position in the second image signal, based on the first image signal;

second data selection means for selecting multiple items of correction data that corresponds to the multiple items of pixel data selected by the first data selection means, based on the correction data generated by the correction data generation means;

coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which pixel data of the target position in the second image signal belongs; and

pixel data generation means for generating the pixel data of the target position in the second image signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means, the multiple items of pixel data selected by the first data selection means, and the multiple items of correction data selected by the second data selection means.

65. A method for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an

encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

5 a second step of selecting multiple items of informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

a third step of selecting multiple items of correction data that corresponds to the multiple items of informational data selected at the second step, based on the correction data generated at the first  
10 step;

a fourth step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs; and

15 a fifth step of generating the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fourth step, the multiple items of informational data selected at the second step, and the multiple items of correction data selected at the third step.

20

66. A computer-readable medium for recording a program that allows a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational  
25 signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class



to which informational data of a target position in the second informational signal belongs;

a second step of selecting multiple items of informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

a third step of selecting multiple items of correction data that corresponds to the multiple items of informational data selected at the second step, based on the correction data generated at the first step;

a fourth step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs; and

a fifth step of generating the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fourth step, the multiple items of informational data selected at the second step, and the multiple items of correction data selected at the third step.

67. A program for allowing a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second

informational signal belongs;

a second step of selecting multiple items of informational data positioned in a periphery of a target position in the second informational signal, based on the first informational signal;

5 a third step of selecting multiple items of correction data that corresponds to the multiple items of informational data selected at the second step, based on the correction data generated at the first step;

a fourth step of generating coefficient data used in an estimate  
10 equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs; and

a fifth step of generating the informational data of the target position in the second informational signal based on the estimate  
15 equation by using the coefficient data generated at the fourth step, the multiple items of informational data selected at the second step, and the multiple items of correction data selected at the third step.

68. An apparatus for processing informational signal in which  
20 a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the apparatus comprising:

25 correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

orthogonal transformation means for performing orthogonal

transformation on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to a periphery of the target position in the second informational signal;

5 frequency coefficient selection means for selecting plural frequency coefficients each corresponding to the periphery of the target position in the second informational signal based on a frequency coefficient obtained by the orthogonal transformation means;

10 correction data selection means for selecting multiple items of correction data corresponding to the plural frequency coefficients selected by the frequency coefficient selection means, based on the correction data generated by the correction data generation means;

coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs;

15 frequency coefficient generation means for generating a frequency coefficient corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means, the plural frequency coefficients selected by the frequency coefficient selection means, and the multiple items of correction data selected by the correction data selection means; and

25 inverse orthogonal transformation means for performing inverse orthogonal transformation on the frequency coefficient generated by the frequency coefficient generation means to obtain the informational data of the target position in the informational signal.

69. The apparatus for processing informational signal according to Claim 68, wherein the first class and the second class are the same as each other.

5           70. The apparatus for processing informational signal according to Claim 68, wherein class classification relating to the second class is the one obtained by making class classification relating to said first class finer.

10           71. A device for processing image signal in which a first image signal comprised of multiple items of pixel data, said first image signal being obtained by decoding an encoded digital image signal, is converted into a second image signal comprised of multiple items of pixel data, the device comprising:

15           correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which pixel data of a target position in the second image signal belongs;

            orthogonal transformation means for performing orthogonal  
20           transformation on pixel data among the multiple items of pixel data that constitute the first image signal, said pixel data corresponding to a periphery of the target position in the second image signal;

            frequency coefficient selection means for selecting plural  
            frequency coefficients each corresponding to the periphery of the  
25           target position in the second image signal based on a frequency coefficient obtained by the orthogonal transformation means;

            correction data selection means for selecting multiple items of correction data corresponding to the plural frequency coefficients selected by the frequency coefficient selection means, based on the

correction data generated by the correction data generation means;

coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which pixel data of the target position in the  
 5 second image signal belongs;

frequency coefficient generation means for generating a frequency coefficient corresponding to the pixel data of the target position in the second image signal based on the estimate equation by using the coefficient data generated by the coefficient data  
 10 generation means, the plural frequency coefficients selected by the frequency coefficient selection means, and the multiple items of correction data selected by the correction data selection means; and

inverse orthogonal transformation means for performing inverse orthogonal transformation on the frequency coefficient generated by  
 15 the frequency coefficient generation means to obtain the pixel data of the target position in the second image signal.

72. An image display device comprising:

image signal input means for allowing a first image signal  
 20 comprised of multiple items of pixel data to be input, said first image signal being obtained by decoding an encoded digital image signal;

image-signal-processing means for converting the first image signal input through the image signal input means into a second image signal comprised of multiple items of pixel data and outputting it;  
 25 and

image display means for displaying an image on an image display element thereof, said image being due to the second image signal output from the image-signal-processing means,

wherein the image-signal-processing means comprises:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which pixel data of a target position in the second image signal belongs;

5           orthogonal transformation means for performing orthogonal transformation on pixel data among the multiple items of pixel data that constitute the first image signal, said pixel data corresponding to a periphery of the target position in the second image signal;

10           frequency coefficient selection means for selecting plural frequency coefficients each corresponding to the periphery of the target position in the second image signal based on a frequency coefficient obtained by the orthogonal transformation means;

15           correction data selection means for selecting multiple items of correction data corresponding to the plural frequency coefficients selected by the frequency coefficient selection means, based on the correction data generated by the correction data production means;

20           coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which pixel data of the target position in the second image signal belongs;

25           frequency coefficient generation means for generating a frequency coefficient corresponding to the pixel data of the target position in the second image signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means, the plural frequency coefficients selected by the frequency coefficient selection

means, and the multiple items of correction data selected by the correction data selection means; and

5        inverse orthogonal transformation means for performing inverse orthogonal transformation on the frequency coefficient generated by the frequency coefficient production means to obtain the pixel data of the target position in the second image signal by.

73. A method for processing informational signal in which a  
10 first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the method comprising:

15        a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

20        a second step of performing orthogonal transformation on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to a periphery of the target position in the second informational signal;

25        a third step of selecting plural frequency coefficients each corresponding to the periphery of the target position in the second informational signal based on the frequency coefficient obtained at the second step;

      a fourth step of selecting multiple items of correction data corresponding to the plural frequency coefficients selected at the

third step, based on the correction data generated at the first step;

a fifth step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second

5 informational signal belongs;

a sixth step of generating a frequency coefficient corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fifth step, the plural frequency  
10 coefficients selected at the third step, and the multiple items of correction data selected at the fourth step; and

a seventh step of performing inverse orthogonal transformation on the frequency coefficient generated at the sixth step to obtain the informational data of the target position in the second

15 informational signal.

74. A computer-readable medium for recording a program that allows a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised  
20 of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an  
25 encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of performing orthogonal transformation on informational data among the multiple items of informational data that



constitute the first informational signal, said informational data corresponding to a periphery of the target position in the second informational signal;

5 a third step of selecting plural frequency coefficients each corresponding to the periphery of the target position in the second informational signal based on the frequency coefficient obtained at the second step;

10 a fourth step of selecting multiple items of correction data corresponding to the plural frequency coefficients selected at the third step, based on the correction data generated at the first step;

a fifth step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs;

15 a sixth step of generating a frequency coefficient corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fifth step, the plural frequency coefficients selected at the third step, and the multiple items of correction data selected at the fourth step; and

20

a seventh step of performing inverse orthogonal transformation on the frequency coefficient generated at the sixth step to obtain the informational data of the target position in the second informational signal.

25

75. A program for allowing a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded

informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

5 a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

10 a second step of performing orthogonal transformation on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to a periphery of the target position in the second informational signal;

15 a third step of selecting plural frequency coefficients each corresponding to the periphery of the target position in the second informational signal based on the frequency coefficient obtained at the second step;

a fourth step of selecting multiple items of correction data corresponding to the plural frequency coefficients selected at the third step, based on the correction data generated at the first step;

20 a fifth step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs;

25 a sixth step of generating a frequency coefficient corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fifth step, the plural frequency coefficients selected at the third step, and the multiple items of correction data selected at the fourth step; and

a seventh step of performing inverse orthogonal transformation on the frequency coefficient generated at the sixth step to obtain the informational data of the target position in the second informational signal.

5

76. An apparatus for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into  
10 a second informational signal comprised of multiple items of informational data, the apparatus comprising:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in  
15 the second informational signal belongs;

data selection means for selecting multiple items of correction data corresponding to a periphery of the target position in the second informational signal based on the correction data generated by the correction data generation means;

20 coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

correction data generation means for generating correction data  
25 corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means and the multiple items of correction data selected by the data selection means; and

informational data generation means for performing correction processing by use of the correction data generated by the correction data generation means on the informational data, which corresponds to the target position in the second informational signal, among the multiple items of informational data that constitute the first informational signal to generate the informational data of the target position in the second informational signal.

77. The apparatus for processing informational signal according to Claim 76, wherein the first class and the second class are the same as each other.

78. The apparatus for processing informational signal according to Claim 76, wherein class classification relating to the second class is the one obtained by making class classification relating to said first class finer.

79. A device for processing image signal in which a first image signal comprised of multiple items of pixel data, said first image signal being obtained by decoding an encoded digital image signal, is converted into a second image signal comprised of multiple items of pixel data, the device comprising:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which pixel data of a target position in the second image signal belongs;

data selection means for selecting multiple items of correction data corresponding to a periphery of the target position in the second image signal based on the correction data generated by the correction

data generation means;

coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the pixel data of the target position in the second image signal belongs;

correction data generation means for generating correction data corresponding to the pixel data of the target position in the second image signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means and the multiple items of correction data selected by the data selection means; and

pixel data generation means for performing correction processing by use of the correction data generated by the correction data generation means on the pixel data, which corresponds to the target position in the second image signal, among the multiple items of pixel data that constitute the first image signal to generate the pixel data of the target position in the second image signal.

80. An image display device comprising:

image signal input means for allowing a first image signal comprised of multiple items of pixel data to be input, said first image signal being obtained by decoding an encoded digital image signal;

image-signal-processing means for converting the first image signal input through the image signal input means into a second image signal comprised of multiple items of pixel data and outputting it; and

image display means for displaying an image on an image display element thereof, said image being due to the second image signal output from the image-signal-processing means,

wherein the image-signal-processing means comprises:

correction data generation means for generating  
correction data for correcting an encoding noise, said  
correction data corresponding to a first class to which pixel  
5 data of a target position in the second image signal belongs;

data selection means for selecting multiple items of  
correction data corresponding to a periphery of the target  
position in the second image signal based on the correction data  
generated by the correction data generation means;

10 coefficient data generation means for generating  
coefficient data used in an estimate equation, said coefficient  
data corresponding to a second class to which the pixel data  
of the target position in the second image signal belongs;

correction data generation means for generating  
15 correction data corresponding to the pixel data of the target  
position in the second image signal based on the estimate  
equation by using the coefficient data generated by the  
coefficient data generation means and the multiple items of  
correction data selected by the data selection means; and

20 pixel data generation means for performing correction  
processing by use of the correction data generated by the  
correction data generation means on the pixel data, which  
corresponds to the target position in the second image signal,  
among the multiple items of pixel data that constitute the first  
25 image signal to generate the pixel data of the target position  
in the second image signal.

81. A method for processing informational signal in which a  
first informational signal comprised of multiple items of

informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the method comprising:

5           a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

10           a second step of selecting multiple items of correction data corresponding to a periphery of the target position in the second informational signal based on the correction data generated at the first step;

15           a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

20           a fourth step of generating correction data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the step third step and the multiple items of correction data selected at the second step; and

25           a fifth step of performing correction processing by use of the correction data generated at the fourth step on informational data, which corresponds to the target position in the second informational signal, among the multiple items of informational data that constitute the first informational signal to generate informational data of the target position in the second informational signal.

82. A computer-readable medium for recording a program that

allows a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal,  
5 into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second  
10 informational signal belongs;

a second step of selecting multiple items of correction data corresponding to a periphery of the target position in the second informational signal based on the correction data generated at the first step;

15 a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

a fourth step of generating correction data corresponding to  
20 the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the step third step and the multiple items of correction data selected at the second step; and

a fifth step of performing correction processing by use of the  
25 correction data generated at the fourth step on informational data, which corresponds to the target position in the second informational signal, among the multiple items of informational data that constitute the first informational signal to generate informational data of the target position in the second informational signal.



83. A program for allowing a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

10 a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of selecting multiple items of correction data corresponding to a periphery of the target position in the second informational signal based on the correction data generated at the first step;

15 a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

a fourth step of generating correction data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the step third step and the multiple items of correction data selected at the second step; and

25 a fifth step of performing correction processing by use of the correction data generated at the fourth step on informational data, which corresponds to the target position in the second informational signal, among the multiple items of informational data that constitute

the first informational signal to generate informational data of the target position in the second informational signal.

84. An apparatus for processing informational signal in which  
5 a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the apparatus comprising:

10 correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

orthogonal transformation means for performing orthogonal  
15 transformation on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to a periphery of the target position in the second informational signal;

data selection means for selecting multiple items of correction  
20 data corresponding to the periphery of the target position in the second informational signal, based on the correction data generated by the correction data generation means;

coefficient data generation means for generating coefficient  
data used in an estimate equation, said coefficient data corresponding  
25 to a second class to which informational data of the target position in the second informational signal belongs;

correction data generation means for generating correction data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using

the coefficient data generated by the coefficient data generation means, and the multiple items of correction data selected by the data selection means;

frequency coefficient generation means for generating a  
5 frequency coefficient corresponding to the informational data of the target position in the second informational signal by performing correction processing by use of the correction data generated by the correction data generation means on the frequency coefficient obtained by the orthogonal transformation means; and

10 inverse orthogonal transformation means for performing inverse orthogonal transformation on the frequency coefficient generated by the frequency coefficient generation means to obtain the informational data of the target position in the informational signal.

15 85. The apparatus for processing informational signal according to Claim 84, wherein the first class and the second class are the same as each other.

20 86. The apparatus for processing informational signal according to Claim 84, wherein class classification relating to the second class is the one obtained by making class classification relating to said first class finer.

25 87. A device for processing image signal in which a first image signal comprised of multiple items of pixel data, said first image signal being obtained by decoding an encoded digital image signal, is converted into a second image signal comprised of multiple items of pixel data, the device comprising:

correction data generation means for generating correction data

for correcting an encoding noise, said correction data corresponding to a first class to which pixel data of a target position in the second image signal belongs;

orthogonal transformation means for performing orthogonal  
5 transformation on pixel data among the multiple items of pixel data that constitute the first image signal, said pixel data corresponding to a periphery of the target position in the second image signal;

data selection means for selecting multiple items of  
correction data corresponding to the periphery of the target position  
10 in the second image signal, based on the correction data generated by the correction data generation means;

coefficient data generation means for generating coefficient  
data used in an estimate equation, said coefficient data corresponding to a second class to which pixel data of the target position in the  
15 second image signal belongs;

correction data generation means for generating correction data  
corresponding to the pixel data of the target position in the second  
image signal based on the estimate equation by using the coefficient  
data generated by the coefficient data generation means and the  
20 multiple items of correction data selected by the data selection means;

frequency coefficient generation means for generating a  
frequency coefficient corresponding to the pixel data of the target  
position in the second image signal by performing correction  
processing by use of the correction data generated by the correction  
25 data generation means on the frequency coefficient obtained by the  
orthogonal transformation means; and

inverse orthogonal transformation means for performing inverse  
orthogonal transformation on the frequency coefficient generated by  
the frequency coefficient generation means to obtain the pixel data

of the target position in the second image signal.

88. An image display device comprising:

image signal input means for allowing a first image signal  
5 comprised of multiple items of pixel data to be input, said first image  
signal being obtained by decoding an encoded digital image signal;

image-signal-processing means for converting the first image  
signal input through the image signal input means into a second image  
signal comprised of multiple items of pixel data and outputting it;

10 and

image display means for displaying an image on an image display  
element thereof, said image being due to the second image signal output  
from the image-signal-processing means,

wherein the image-signal-processing means comprises:

15

correction data generation means for generating  
correction data for correcting an encoding noise, said  
correction data corresponding to a first class to which pixel  
data of a target position in the second image signal belongs;

20

orthogonal transformation means for performing  
orthogonal transformation on pixel data among the multiple  
items of pixel data that constitute the first image signal, said  
pixel data corresponding to a periphery of the target position  
in the second image signal;

25

data selection means for selecting multiple items of  
correction data corresponding to the periphery of the target  
position in the second image signal, based on the correction  
data generated by the correction data generation means;

coefficient data generation means for generating  
coefficient data used in an estimate equation, said coefficient

data corresponding to a second class to which pixel data of the target position in the second image signal belongs;

correction data generation means for generating correction data corresponding to the pixel data of the target position in the second image signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means and the multiple items of correction data selected by the data selection means;

frequency coefficient generation means for generating a frequency coefficient corresponding to the pixel data of the target position in the second image signal by performing correction processing by use of the correction data generated by the correction data generation means on the frequency coefficient obtained by the orthogonal transformation means;

and

inverse orthogonal transformation means for performing inverse orthogonal transformation on the frequency coefficient generated by the frequency coefficient generation means to obtain the pixel data of the target position in the second image signal.

89. A method for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class

to which informational data of a target position in the second informational signal belongs;

5 a second step of performing orthogonal transformation on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to the periphery of the target position in the second informational signal;

10 a third step of selecting multiple items of correction data corresponding to the periphery of the target position in the second informational signal, based on the correction data generated at the first step;

15 a fourth step of generating such coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs;

20 a fifth step of generating correction data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fourth step and the multiple items of correction data selected at the third step;

25 a sixth step of generating a frequency coefficient corresponding to the informational data of the target position in the second informational signal by performing correction processing by use of the correction data generated at the fifth step on the frequency coefficient obtained at the second step; and

a seventh step of performing inverse orthogonal transformation on the frequency coefficient generated at the sixth step to obtain the informational data of the target position in the second informational signal.

90. A computer-readable medium for recording a program that allows a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational data  
5 being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an  
10 encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of performing orthogonal transformation on informational data among the multiple items of informational data that  
15 constitute the first informational signal, said informational data corresponding to the periphery of the target position in the second informational signal;

a third step of selecting multiple items of correction data corresponding to the periphery of the target position in the second  
20 informational signal, based on the correction data generated at the first step;

a fourth step of generating such coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second  
25 informational signal belongs;

a fifth step of generating correction data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fourth step and the multiple items



of correction data selected at the third step;

a sixth step of generating a frequency coefficient corresponding to the informational data of the target position in the second informational signal by performing correction processing by use of the correction data generated at the fifth step on the frequency coefficient obtained at the second step; and

a seventh step of performing inverse orthogonal transformation on the frequency coefficient generated at the sixth step to obtain the informational data of the target position in the second informational signal.

91. A program for allowing a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of performing orthogonal transformation on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to the periphery of the target position in the second informational signal;

a third step of selecting multiple items of correction data corresponding to the periphery of the target position in the second

informational signal, based on the correction data generated at the first step;

5 a fourth step of generating such coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs;

10 a fifth step of generating correction data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fourth step and the multiple items of correction data selected at the third step;

15 a sixth step of generating a frequency coefficient corresponding to the informational data of the target position in the second informational signal by performing correction processing by use of the correction data generated at the fifth step on the frequency coefficient obtained at the second step; and

20 a seventh step of performing inverse orthogonal transformation on the frequency coefficient generated at the sixth step to obtain the informational data of the target position in the second informational signal.

92. An apparatus for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained  
25 by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the apparatus comprising:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding

to a first class to which informational data of a target position in the second informational signal belongs;

data selection means for selecting multiple items of informational data positioned in a periphery of the target position  
5 in the second informational signal, based on the first informational signal;

coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position  
10 in the second informational signal belongs;

data generation means for generating data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means, and the multiple  
15 items of informational data selected by the data selection means;

informational data generation means for generating the informational data of the target position in the second informational signal by performing correction processing by use of the correction data generated by the correction data generation means on the data  
20 generated by the data generation means.

93. The apparatus for processing informational signal according to Claim 92, wherein the first class and the second class are the same as each other.

25

94. The apparatus for processing informational signal according to Claim 92, wherein class classification relating to the second class is the one obtained by making class classification relating to said first class finer.

95. A device for processing image signal in which a first image signal comprised of multiple items of pixel data, said first image signal being obtained by decoding an encoded digital image signal, is converted into a second image signal comprised of multiple items of pixel data, the device comprising:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which pixel data of a target position in the second image signal belongs;

data selection means for selecting multiple items of pixel data positioned in a periphery of the target position in the second image signal, based on the first image signal;

coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which pixel data of the target position in the second image signal belongs;

data generation means for generating data corresponding to the pixel data of the target position in the second image signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means and the multiple items of pixel data selected by the data selection means; and

pixel data generation means for generating the pixel data of the target position in the second image signal by performing correction processing by use of the correction data generated by the correction data generation means on the data generated by the data generation means.

96. An image display device comprising:

image signal input means for allowing a first image signal comprised of multiple items of pixel data to be input, said first image signal being obtained by decoding an encoded digital image signal;

5 image-signal-processing means for converting the first image signal input through the image signal input means into a second image signal comprised of multiple items of pixel data and outputting it; and

image display means for displaying an image on an image display element thereof, said image being due to the second image signal output  
10 from the image-signal-processing means,

wherein the image-signal-processing means comprises:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which pixel data of a target position in the second image signal belongs;  
15

data selection means for selecting multiple items of pixel data positioned in a periphery of the target position in the second image signal, based on the first image signal;

coefficient data generation means for generating  
20 coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which pixel data of the target position in the second image signal belongs;

data generation means for generating data corresponding to the pixel data of the target position in the second image  
25 signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means and the multiple items of pixel data selected by the data selection means; and

pixel data generation means for generating the pixel data

of the target position in the second image signal by performing correction processing by use of the correction data generated by the correction data generation means on the data generated by the data generation means.

5

97. A method for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into  
10 a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second  
15 informational signal belongs;

a second step of selecting multiple items of informational data positioned in a periphery of the target position in the second informational signal, based on the first informational signal;

a third step of generating coefficient data used in an estimate  
20 equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs;

a fourth step of generating data corresponding to the informational data of the target position in the second informational  
25 signal based on the estimate equation by using the coefficient data generated at the third step and the multiple items of informational data selected at the second step; and

a fifth step of generating the informational data of the target position in the second informational signal by performing correction

processing by use of the correction data generated at the first step on the data generated at the fourth step.

98. A computer-readable medium for recording a program that  
5 allows a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of  
10 informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

15 a second step of selecting multiple items of informational data positioned in a periphery of the target position in the second informational signal, based on the first informational signal;

a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to  
20 which informational data of the target position in the second informational signal belongs;

a fourth step of generating data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data  
25 generated at the third step and the multiple items of informational data selected at the second step; and

a fifth step of generating the informational data of the target position in the second informational signal by performing correction processing by use of the correction data generated at the first step

on the data generated at the fourth step.

99. A program for allowing a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

10       a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

15       a second step of selecting multiple items of informational data positioned in a periphery of the target position in the second informational signal, based on the first informational signal;

20       a third step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs;

25       a fourth step of generating data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the third step and the multiple items of informational data selected at the second step; and

      a fifth step of generating the informational data of the target position in the second informational signal by performing correction processing by use of the correction data generated at the first step on the data generated at the fourth step.



100. An apparatus for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained  
5 by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the apparatus comprising:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding  
10 to a first class to which informational data of a target position in the second informational signal belongs;

orthogonal transformation means for performing orthogonal transformation on informational data among the multiple items of informational data that constitute the first informational signal,  
15 said informational data corresponding to a periphery of the target position in the second informational signal;

frequency coefficient selection means for selecting plural frequency coefficients each corresponding to the periphery of the target position in the second informational signal based on a frequency  
20 coefficient obtained by the orthogonal transformation means;

coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which informational data of the target position in the second informational signal belongs;

25 data generation means for generating data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means and the plural frequency coefficients selected by the frequency coefficient

selection means;

frequency coefficient generation means for generating a frequency coefficient corresponding to the informational data of the target position in the second informational signal by performing  
5 correction processing by use of the correction data generated by the correction data generation means on the data generated by the data generation means; and

inverse orthogonal transformation means for performing inverse orthogonal transformation on the frequency coefficient generated by  
10 the frequency coefficient generation means to obtain the informational data of the target position in the second informational signal.

101. The apparatus for processing informational signal according to Claim 100, wherein the first class and the second class  
15 are the same as each other.

102. The apparatus for processing informational signal according to Claim 100, wherein class classification relating to the second class is the one obtained by making class classification  
20 relating to said first class finer.

103. A device for processing image signal in which a first image signal comprised of multiple items of pixel data, said first image signal being obtained by decoding an encoded digital image signal,  
25 is converted into a second image signal comprised of multiple items of pixel data, the device comprising:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which pixel data of a target position in the second

image signal belongs;

orthogonal transformation means for performing orthogonal transformation on pixel data among the multiple items of pixel data that constitute the first image signal, said pixel data corresponding to a periphery of the target position in the second image signal;

frequency coefficient selection means for selecting plural frequency coefficients each corresponding to the periphery of the target position in the second image signal based on a frequency coefficient obtained by the orthogonal transformation means;

coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which pixel data of the target position in the second image signal belongs;

data generation means for generating data corresponding to the pixel data of the target position in the second image signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means and the plural frequency coefficients selected by the frequency coefficient selection means;

frequency coefficient generation means for generating a frequency coefficient corresponding to the pixel data of the target position in the second image signal by performing correction processing by use of the correction data generated by the correction data generation means on the data generated by the data generation means; and

inverse orthogonal transformation means for performing inverse orthogonal transformation on the frequency coefficient generated by the frequency coefficient generation means to obtain the pixel data of the target position in the second image signal.

104. An image display device comprising:

image signal input means for allowing a first image signal comprised of multiple items of pixel data to be input, said first image signal being obtained by decoding an encoded digital image signal;

5 image-signal-processing means for converting the first image signal input through the image signal input means into a second image signal comprised of multiple items of pixel data and outputting it; and

image display means for displaying an image on an image display element thereof, said image being due to the second image signal output from the image-signal-processing means,

wherein the image-signal-processing means comprises:

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which pixel data of a target position in the second image signal belongs;

15 orthogonal transformation means for performing orthogonal transformation on pixel data among the multiple items of pixel data that constitute the first image signal, said pixel data corresponding to a periphery of the target position in the second image signal;

20 frequency coefficient selection means for selecting plural frequency coefficients each corresponding to the periphery of the target position in the second image signal based on a frequency coefficient obtained by the orthogonal transformation means;

25 coefficient data generation means for generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which pixel data of the

target position in the second image signal belongs;

data generation means for generating data corresponding to the pixel data of the target position in the second image signal based on the estimate equation by using the coefficient data generated by the coefficient data generation means and the plural frequency coefficients selected by the frequency coefficient selection means;

frequency coefficient generation means for generating a frequency coefficient corresponding to the pixel data of the target position in the second image signal by performing correction processing by use of the correction data generated by the correction data generation means on the data generated by the data generation means; and

inverse orthogonal transformation means for performing inverse orthogonal transformation on the frequency coefficient generated by the frequency coefficient generation means to obtain the pixel data of the target position in the second image signal.

105. A method for processing informational signal in which a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, is converted into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second informational signal belongs;

a second step of performing orthogonal transformation on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to a periphery of the target position in the second informational signal;

a third step of selecting plural frequency coefficients each corresponding to the periphery of the target position in the second informational signal based on a frequency coefficient obtained by the orthogonal transformation means:

10 a fourth step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

15 a fifth step of generating data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fourth step and the plural frequency coefficients selected at the third step;

20 a sixth step of generating a frequency coefficient corresponding to the informational data of the target position in the second informational signal by performing correction processing by use of the correction data produced at the first step on the data generated at the fifth step; and

25 a seventh step of performing inverse orthogonal transformation on the frequency coefficient generated at the sixth step to obtain the informational data of the target position in the second informational signal.

106. A computer-readable medium for recording a program that

allows a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal,  
5 into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second  
10 informational signal belongs;

a second step of performing orthogonal transformation on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to a periphery of the target position in the second  
15 informational signal;

a third step of selecting plural frequency coefficients each corresponding to the periphery of the target position in the second informational signal based on a frequency coefficient obtained by the orthogonal transformation means:

20 a fourth step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

a fifth step of generating data corresponding to the  
25 informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fourth step and the plural frequency coefficients selected at the third step;

a sixth step of generating a frequency coefficient

corresponding to the informational data of the target position in the second informational signal by performing correction processing by use of the correction data produced at the first step on the data generated at the fifth step; and

5           a seventh step of performing inverse orthogonal transformation on the frequency coefficient generated at the sixth step to obtain the informational data of the target position in the second informational signal.

10           107. A program for allowing a computer to execute a method for processing informational signal, in order to convert a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal  
15 comprised of multiple items of informational data, the method comprising:

          a first step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the second  
20 informational signal belongs;

          a second step of performing orthogonal transformation on informational data among the multiple items of informational data that constitute the first informational signal, said informational data corresponding to a periphery of the target position in the second  
25 informational signal;

          a third step of selecting plural frequency coefficients each corresponding to the periphery of the target position in the second informational signal based on a frequency coefficient obtained by the orthogonal transformation means:



a fourth step of generating coefficient data used in an estimate equation, said coefficient data corresponding to a second class to which the informational data of the target position in the second informational signal belongs;

5           a fifth step of generating data corresponding to the informational data of the target position in the second informational signal based on the estimate equation by using the coefficient data generated at the fourth step and the plural frequency coefficients selected at the third step;

10           a sixth step of generating a frequency coefficient corresponding to the informational data of the target position in the second informational signal by performing correction processing by use of the correction data produced at the first step on the data generated at the fifth step; and

15           a seventh step of performing inverse orthogonal transformation on the frequency coefficient generated at the sixth step to obtain the informational data of the target position in the second informational signal.

20           108. A unit for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items  
25 of informational data, the unit comprising:

decoding means for decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

5 correction means for performing correction processing by use of the correction data generated by the correction data generation means on informational data among multiple items of informational data that constitute the student signal output from the decoding means, said informational data corresponding to the target position in the  
10 teacher signal;

data selection means for selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal, based on the informational data corrected by the correction means; and

15 coefficient data generation means for generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected by the data selection means, and the informational data of the target position in the teacher  
20 signal.

109. A method for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational  
25 signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second

informational signal, to obtain a student signal that corresponds to the first informational signal;

5 a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

10 a third step of performing correction processing by use of the correction data generated at the second step on informational data among multiple items of informational data that constitute the student signal obtained at the first step, said informational data corresponding to the target position in the teacher signal;

a fourth step of selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal, based on the informational data corrected at the third step; and

15 a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected at the fourth step, and the informational data of the target position in the teacher signal.

20

110. A computer-readable medium for recording a program that allows a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of  
25 multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal

obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

5 a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

10 a third step of performing correction processing by use of the correction data generated at the second step on informational data among multiple items of informational data that constitute the student signal obtained at the first step, said informational data corresponding to the target position in the teacher signal;

15 a fourth step of selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal, based on the informational data corrected at the third step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected at the fourth step, and the informational data of the target position in the teacher signal.

20

111. A program for allowing a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

25

a first step of decoding the informational digital signal

obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

5 a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

10 a third step of performing correction processing by use of the correction data generated at the second step on informational data among multiple items of informational data that constitute the student signal obtained at the first step, said informational data corresponding to the target position in the teacher signal;

15 a fourth step of selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal, based on the informational data corrected at the third step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected at the fourth step, and the informational data of the target position in the teacher signal.

20

112. A unit for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the unit comprising:

25

decoding means for decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second

informational signal, to obtain a student signal that corresponds to the first informational signal;

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

first orthogonal transformation means for performing orthogonal transformation on informational data among the multiple items of informational data that constitute the student signal output from the decoding means, said informational data corresponding to the target position in the teacher signal, to obtain a first frequency coefficient;

correction means for performing correction processing by use of the correction data generated by the correction data generation means on the frequency coefficient obtained by the first orthogonal transformation means;

frequency coefficient selection means for selecting plural frequency coefficients each corresponding to a periphery of the target position in the teacher signal based on the frequency coefficient corrected by the correction means;

second orthogonal transformation means for performing orthogonal transformation on the informational data of the target position in the teacher signal, to obtain a second frequency coefficient; and

coefficient data generation means for generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the plural frequency coefficients selected by the frequency selection means, and the second frequency coefficient obtained by the second

orthogonal transformation means.

113. A method for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

5 a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

10 a third step of performing orthogonal transformation on informational data among the multiple items of informational data that constitute the student signal, said multiple items of informational data being generated at the first step, said informational data corresponding to the target position in the teacher signal, to obtain a first frequency coefficient;

20 a fourth step of performing correction processing by use of the correction data generated at the second step on the frequency coefficient obtained at the third step;

a fifth step of selecting plural frequency coefficients each corresponding to a periphery of the target position in the teacher signal based on the frequency coefficient corrected at the fourth step;

a sixth step of performing orthogonal transformation on the

informational data of the target position in the teacher signal, to obtain a second frequency coefficient; and

5 a seventh step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the plural frequency coefficients selected at the fifth step, and the second frequency coefficient obtained at the sixth step.

114. A computer-readable medium for recording a program that  
10 allows a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal,  
15 into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to  
20 the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

25 a third step of performing orthogonal transformation on informational data among the multiple items of informational data that constitute the student signal, said multiple items of informational data being generated at the first step, said informational data corresponding to the target position in the teacher signal, to obtain



a first frequency coefficient;

a fourth step of performing correction processing by use of the correction data generated at the second step on the frequency coefficient obtained at the third step;

5 a fifth step of selecting plural frequency coefficients each corresponding to a periphery of the target position in the teacher signal based on the frequency coefficient corrected at the fourth step;

a sixth step of performing orthogonal transformation on the informational data of the target position in the teacher signal, to  
10 obtain a second frequency coefficient; and

a seventh step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the plural frequency coefficients selected at the fifth step, and the second frequency  
15 coefficient obtained at the sixth step.

115. A program for allowing a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational  
20 signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal  
25 obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class

to which informational data of a target position in the teacher signal belongs;

5 a third step of performing orthogonal transformation on informational data among the multiple items of informational data that constitute the student signal, said multiple items of informational data being generated at the first step, said informational data corresponding to the target position in the teacher signal, to obtain a first frequency coefficient;

10 a fourth step of performing correction processing by use of the correction data generated at the second step on the frequency coefficient obtained at the third step;

a fifth step of selecting plural frequency coefficients each corresponding to a periphery of the target position in the teacher signal based on the frequency coefficient corrected at the fourth step;

15 a sixth step of performing orthogonal transformation on the informational data of the target position in the teacher signal, to obtain a second frequency coefficient; and

a seventh step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the plural frequency coefficients selected at the fifth step, and the second frequency coefficient obtained at the sixth step.

25 116. A unit for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the unit comprising:

decoding means for decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

5        correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

10       first data selection means for selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal based on the student signal output from the decoding means;

15       second data selection means for selecting multiple items of correction data that correspond to the multiple items of informational data selected by the first data selection means based on the correction data generated by the correction data generated means; and

20       coefficient data generation means for generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected by the first data selection means, the multiple items of correction data selected by the second data selection means, and the informational data of the target position in the teacher signal.

25       117. A method for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items

of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to  
5 the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

10 a third step of selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal based on the student signal obtained at the first step;

a fourth step of selecting multiple items of correction data that correspond to the multiple items of informational data selected  
15 at the third step based on the correction data generated at the second step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of  
20 informational data selected at the third step, the multiple items of correction data selected at the fourth step, and the informational data of the target position in the teacher signal.

118. A computer-readable medium for recording a program that  
25 allows a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal,

into a second informational signal comprised of multiple items of informational data, the method comprising:

5 a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

10 a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

a third step of selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal based on the student signal obtained at the first step;

15 a fourth step of selecting multiple items of correction data that correspond to the multiple items of informational data selected at the third step based on the correction data generated at the second step; and

20 a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected at the third step, the multiple items of correction data selected at the fourth step, and the informational data of the target position in the teacher signal.

25 119. A program for allowing a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational

digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

5 a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

10 a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

a third step of selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal based on the student signal obtained at the first step;

15 a fourth step of selecting multiple items of correction data that correspond to the multiple items of informational data selected at the third step based on the correction data generated at the second step; and

20 a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected at the third step, the multiple items of correction data selected at the fourth step, and the informational data of the target position in the teacher signal.

25 120. A unit for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items

of informational data, the unit comprising:

decoding means for decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to  
5 the first informational signal;

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

10 first orthogonal transformation means for performing orthogonal transformation on informational data among the multiple items of informational data that constitute the student signal output from the decoding means, said informational data corresponding to the target position in the teacher signal, to obtain a first frequency  
15 coefficient;

frequency coefficient selection means for selecting plural frequency coefficients that correspond to a periphery of the target position in the teacher signal based on the frequency coefficient obtained by the first orthogonal transformation means;

20 correction data selection means for selecting multiple items of correction data that correspond to the plural frequency coefficients selected by the frequency coefficient selection means, based on the correction data generated by the correction data generation means;

25 second orthogonal transformation means for performing orthogonal transformation on informational data of the target position in the teacher signal, to obtain a second frequency coefficient; and  
coefficient data generation means for generating the coefficient data for each class by using a second class to which the

informational data of the target position in the teacher signal belongs,  
the plural frequency coefficients selected by the frequency selection  
means, the multiple items of correction data selected by the correction  
data selection means, and the second frequency coefficient obtained  
5 by the second orthogonal transformation means.

121. A method for generating coefficient data for an estimate  
equation used when converting a first informational signal comprised  
of multiple items of informational data, said first informational  
10 signal being obtained by decoding an encoded informational digital  
signal, into a second informational signal comprised of multiple items  
of informational data, the method comprising:

a first step of decoding the informational digital signal  
obtained by encoding a teacher signal corresponding to the second  
15 informational signal, to obtain a student signal that corresponds to  
the first informational signal;

a second step of generating correction data for correcting an  
encoding noise, said correction data corresponding to a first class  
to which informational data of a target position in the teacher signal  
20 belongs;

a third step of performing orthogonal transformation on  
informational data among the multiple items of informational data that  
constitute the student signal, said multiple items of informational  
data being obtained at the first step, said informational data  
25 corresponding to the target position in the teacher signal, to obtain  
a first frequency coefficient;

a fourth step of selecting plural frequency coefficients that  
correspond to a periphery of the target position in the teacher signal  
based on the frequency coefficient obtained at the third step;



a fifth step of selecting multiple items of correction data that correspond to the plural frequency coefficients selected at the fourth step based on the correction data generated at the second step;

5 a sixth step of performing orthogonal transformation on informational data of the target position in the teacher signal, to obtain a second frequency coefficient; and

a seventh step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the plural frequency  
10 coefficients selected at the fourth step, the multiple items of correction data selected at the fifth step, and the second frequency coefficient obtained at the sixth step.

122. A computer-readable medium for recording a program that  
15 allows a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal,  
20 into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to  
25 the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

a third step of performing orthogonal transformation on informational data among the multiple items of informational data that constitute the student signal, said multiple items of informational data being obtained at the first step, said informational data  
5 corresponding to the target position in the teacher signal, to obtain a first frequency coefficient;

a fourth step of selecting plural frequency coefficients that correspond to a periphery of the target position in the teacher signal based on the frequency coefficient obtained at the third step;

10 a fifth step of selecting multiple items of correction data that correspond to the plural frequency coefficients selected at the fourth step based on the correction data generated at the second step;

a sixth step of performing orthogonal transformation on informational data of the target position in the teacher signal, to  
15 obtain a second frequency coefficient; and

a seventh step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the plural frequency coefficients selected at the fourth step, the multiple items of  
20 correction data selected at the fifth step, and the second frequency coefficient obtained at the sixth step.

123. A program for allowing a computer to execute a method for generating coefficient data, in order to generate the coefficient data  
25 for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

5        a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

10       a third step of performing orthogonal transformation on informational data among the multiple items of informational data that constitute the student signal, said multiple items of informational data being obtained at the first step, said informational data corresponding to the target position in the teacher signal, to obtain a first frequency coefficient;

15       a fourth step of selecting plural frequency coefficients that correspond to a periphery of the target position in the teacher signal based on the frequency coefficient obtained at the third step;

20       a fifth step of selecting multiple items of correction data that correspond to the plural frequency coefficients selected at the fourth step based on the correction data generated at the second step;

a sixth step of performing orthogonal transformation on informational data of the target position in the teacher signal, to obtain a second frequency coefficient; and

25       a seventh step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the plural frequency coefficients selected at the fourth step, the multiple items of correction data selected at the fifth step, and the second frequency coefficient obtained at the sixth step.

124. A unit for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the unit comprising:

decoding means for decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

subtraction means for performing subtraction processing by use of informational data among multiple items of informational data that constitute the student signal, said informational data corresponding to a target position, on informational data of the target position in the teacher signal;

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which the informational data of the target position in the teacher signal belongs;

data selection means for selecting multiple items of correction data corresponding to a periphery of the target position in the teacher signal, based on the correction data generated by the correction data generation means; and

coefficient data generation means for generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of correction data selected by the data selection means, and output data of the subtraction means corresponding to the

informational data of the target position in the teacher signal.

125. A method for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

10 a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

15 a second step of performing subtraction processing by use of informational data among multiple items of informational data that constitute the student signal, said informational data corresponding to a target position, on informational data of the target position in the teacher signal;

20 a third step of generating correction data for correcting a encoding noise, said correction data corresponding to a first class to which the informational data of the target position in the teacher signal belongs;

a fourth step of selecting multiple items of correction data corresponding to a periphery of the target position in the teacher signal, based on the correction data generated at the third step; and

25 a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of correction data selected at the fourth step, and data obtained at the second step corresponding to the informational data of the target

position in the teacher signal.

126. A computer-readable medium for recording a program that allows a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of performing subtraction processing by use of informational data among multiple items of informational data that constitute the student signal, said informational data corresponding to a target position, on informational data of the target position in the teacher signal;

a third step of generating correction data for correcting a encoding noise, said correction data corresponding to a first class to which the informational data of the target position in the teacher signal belongs;

a fourth step of selecting multiple items of correction data corresponding to a periphery of the target position in the teacher signal, based on the correction data generated at the third step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of

correction data selected at the fourth step, and data obtained at the second step corresponding to the informational data of the target position in the teacher signal.

5           127. A program for allowing a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational  
10 digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:  
a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first  
15 informational signal;

a second step of performing subtraction processing by use of informational data among multiple items of informational data that constitute the student signal, said informational data corresponding to a target position, on informational data of the target position  
20 in the teacher signal;

a third step of generating correction data for correcting a encoding noise, said correction data corresponding to a first class to which the informational data of the target position in the teacher signal belongs;

25           a fourth step of selecting multiple items of correction data corresponding to a periphery of the target position in the teacher signal, based on the correction data generated at the third step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target

position in the teacher signal belongs, the multiple items of correction data selected at the fourth step, and data obtained at the second step corresponding to the informational data of the target position in the teacher signal.

5

128. A unit for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital  
10 signal, into a second informational signal comprised of multiple items of informational data, the unit comprising:

decoding means for decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to  
15 the first informational signal;

first orthogonal transformation means for performing orthogonal transformation on informational data of the target position in the teacher signal, to obtain a first frequency coefficient;

second orthogonal transformation means for performing  
20 orthogonal transformation on informational data among multiple items of informational data that constitute the student signal, said informational data corresponding to the target position, to obtain a second frequency coefficient;

subtraction means for performing subtraction processing by use  
25 of the second frequency coefficient obtained by the second orthogonal transformation means on the first frequency coefficient obtained by the first orthogonal transformation means;

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding



to a first class to which the informational data of the target position in the teacher signal belongs;

data selection means for selecting multiple items of correction data corresponding to a periphery of the target position in the teacher signal, based on the correction data generated by the correction data generation means; and

coefficient data generation means for generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of correction data selected by the data selection means, and output data of the subtraction means corresponding to the informational data of the target position in the teacher signal.

129. A method for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of performing orthogonal transformation on informational data of a target position in the teacher signal, to obtain a first frequency coefficient;

a third step of performing orthogonal transformation on informational data among multiple items of informational data that constitute the student signal, said informational data corresponding

to the target position, to obtain a second frequency coefficient;

a fourth step of performing subtraction processing by use of the second frequency coefficient obtained at the third step, on the first frequency coefficient obtained at the second step;

5 a fifth step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which the informational data of the target position in the teacher signal belongs;

a sixth step of selecting multiple items of correction data  
10 corresponding to a periphery of the target position in the teacher signal, based on the correction data generated at the fifth step; and

a seventh step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of  
15 correction data selected at the sixth step, and data obtained at the fourth step corresponding to the informational data of the target position in the teacher signal.

130. A computer-readable medium for recording a program that  
20 allows a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal,  
25 into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to

the first informational signal;

a second step of performing orthogonal transformation on informational data of a target position in the teacher signal, to obtain a first frequency coefficient;

5 a third step of performing orthogonal transformation on informational data among multiple items of informational data that constitute the student signal, said informational data corresponding to the target position, to obtain a second frequency coefficient;

10 a fourth step of performing subtraction processing by use of the second frequency coefficient obtained at the third step, on the first frequency coefficient obtained at the second step;

a fifth step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which the informational data of the target position in the teacher  
15 signal belongs;

a sixth step of selecting multiple items of correction data corresponding to a periphery of the target position in the teacher signal, based on the correction data generated at the fifth step; and

20 a seventh step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of correction data selected at the sixth step, and data obtained at the fourth step corresponding to the informational data of the target position in the teacher signal.

25

131. A program for allowing a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first

informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

5       a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

10       a second step of performing orthogonal transformation on informational data of a target position in the teacher signal, to obtain a first frequency coefficient;

      a third step of performing orthogonal transformation on informational data among multiple items of informational data that constitute the student signal, said informational data corresponding to the target position, to obtain a second frequency coefficient;

15       a fourth step of performing subtraction processing by use of the second frequency coefficient obtained at the third step, on the first frequency coefficient obtained at the second step;

      a fifth step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class  
20       to which the informational data of the target position in the teacher signal belongs;

      a sixth step of selecting multiple items of correction data corresponding to a periphery of the target position in the teacher signal, based on the correction data generated at the fifth step; and

25       a seventh step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of correction data selected at the sixth step, and data obtained at the fourth step corresponding to the informational data of the target

position in the teacher signal.

132. A unit for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the unit comprising:

decoding means for decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of the target position in the teacher signal belongs;

subtraction means for performing subtraction processing by use of correction data generated by the correction data generation means on informational data of the target position in the teacher signal;

data selection means for selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal, based on the student signal output from the decoding means; and

coefficient data generation means for generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of information data selected by the data selection means, and output data of the subtraction means corresponding to the informational data of the target position in the teacher signal.

133. A method for generating coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational  
5 signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second  
10 informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal  
15 belongs;

a third step of performing subtraction processing by use of the correction data generated at the second step, on the informational data of the target position in the teacher signal;

a fourth step of selecting multiple items of informational data  
20 positioned in a periphery of the target position in the teacher signal, based on the student signal obtained at the first step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of  
25 informational data selected at the fourth step, and data obtained at the third step corresponding to the informational data of the target position in the teacher signal.

134. A computer-readable medium for recording a program that

allows a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data  
5 being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second  
10 informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal  
15 belongs;

a third step of performing subtraction processing by use of the correction data generated at the second step, on the informational data of the target position in the teacher signal;

a fourth step of selecting multiple items of informational data  
20 positioned in a periphery of the target position in the teacher signal, based on the student signal obtained at the first step; and

a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of  
25 informational data selected at the fourth step, and data obtained at the third step corresponding to the informational data of the target position in the teacher signal.

135. A program for allowing a computer to execute a method for

generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

5 a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of a target position in the teacher signal belongs;

15 a third step of performing subtraction processing by use of the correction data generated at the second step, on the informational data of the target position in the teacher signal;

a fourth step of selecting multiple items of informational data positioned in a periphery of the target position in the teacher signal, based on the student signal obtained at the first step; and

20 a fifth step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the multiple items of informational data selected at the fourth step, and data obtained at the third step corresponding to the informational data of the target position in the teacher signal.

136. A unit for generating coefficient data for an estimate equation used when converting a first informational signal comprised



of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the unit comprising:

5        decoding means for decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

10        first orthogonal transformation means for performing orthogonal transformation on informational data of a target position in the teacher signal, to obtain a first frequency coefficient;

15        correction data generation means for generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of the target position in the teacher signal belongs;

20        subtraction means for performing subtraction processing by use of the correction data generated by the correction data generation means on frequency coefficient obtained by the first orthogonal transformation means;

25        second orthogonal transformation means for performing orthogonal transformation on informational data among the multiple items of informational data that constitute the student signal output from the decoding means, said informational data corresponding to the target position in the teacher signal, to obtain a second frequency coefficient;

frequency coefficient selection means for selecting plural frequency coefficients that correspond to a periphery of the target position in the teacher signal based on the frequency coefficient obtained by the second orthogonal transformation means; and

coefficient data generation means for generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the plural frequency coefficients selected by the frequency selection  
5 means, output data of the subtraction means corresponding to the informational data of the target position in the teacher signal.

137. A method for generating coefficient data for an estimate equation used when converting a first informational signal comprised  
10 of multiple items of informational data, said first informational signal being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal  
15 obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of performing orthogonal transformation on informational data of a target position in the teacher signal, to  
20 obtain a first frequency coefficient;

a third step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of the target position in the teacher signal belongs;

25 a fourth step of performing subtraction processing by use of the correction data obtained at the third step, on the frequency coefficient obtained at the second step;

a fifth step of performing orthogonal transformation on informational data among multiple items of informational data that

constitute the student signal obtained at the first step, said informational data corresponding to the target position in the teacher signal, to obtain a second frequency coefficient;

a sixth step of selecting plural frequency coefficients that correspond to a periphery of the target position in the teacher signal based on the frequency coefficient obtained at the fifth step; and

a seventh step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the plural frequency coefficients selected at the sixth step, and the data obtained at the fourth step corresponding to the informational data of the target position in the teacher signal.

138. A computer-readable medium for recording a program that allows a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

a second step of performing orthogonal transformation on informational data of a target position in the teacher signal, to obtain a first frequency coefficient;

a third step of generating correction data for correcting an

encoding noise, said correction data corresponding to a first class to which informational data of the target position in the teacher signal belongs;

5 a fourth step of performing subtraction processing by use of the correction data obtained at the third step, on the frequency coefficient obtained at the second step;

a fifth step of performing orthogonal transformation on informational data among multiple items of informational data that constitute the student signal obtained at the first step, said  
10 informational data corresponding to the target position in the teacher signal, to obtain a second frequency coefficient;

a sixth step of selecting plural frequency coefficients that correspond to a periphery of the target position in the teacher signal based on the frequency coefficient obtained at the fifth step; and

15 a seventh step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the plural frequency coefficients selected at the sixth step, and the data obtained at the fourth step corresponding to the informational data of the target  
20 position in the teacher signal.

139. A program for allowing a computer to execute a method for generating coefficient data, in order to generate the coefficient data for an estimate equation used when converting a first informational  
25 signal comprised of multiple items of informational data, said first informational data being obtained by decoding an encoded informational digital signal, into a second informational signal comprised of multiple items of informational data, the method comprising:

a first step of decoding the informational digital signal

obtained by encoding a teacher signal corresponding to the second informational signal, to obtain a student signal that corresponds to the first informational signal;

5 a second step of performing orthogonal transformation on informational data of a target position in the teacher signal, to obtain a first frequency coefficient;

10 a third step of generating correction data for correcting an encoding noise, said correction data corresponding to a first class to which informational data of the target position in the teacher signal belongs;

a fourth step of performing subtraction processing by use of the correction data obtained at the third step, on the frequency coefficient obtained at the second step;

15 a fifth step of performing orthogonal transformation on informational data among multiple items of informational data that constitute the student signal obtained at the first step, said informational data corresponding to the target position in the teacher signal, to obtain a second frequency coefficient;

20 a sixth step of selecting plural frequency coefficients that correspond to a periphery of the target position in the teacher signal based on the frequency coefficient obtained at the fifth step; and

a seventh step of generating the coefficient data for each class by using a second class to which the informational data of the target position in the teacher signal belongs, the plural frequency  
25 coefficients selected at the sixth step, and the data obtained at the fourth step corresponding to the informational data of the target position in the teacher signal.